

Notes:

1. If the utility program has already processed a SET\_REPEAT\_COUNT\_ID and the repeat block size in the header is nonzero, then the repeat count has already been set and this key will be ignored.
2. If the utility program has NOT encountered a SET\_REPEAT\_COUNT\_ID key, or the repeat block size in the SET\_REPEAT\_COUNT\_ID header is 0, then the byte at this position in the SMBIOS structure will be used as the size and the repeat count will be calculated as follows:

$$\frac{(\text{Structure Length} - \text{Current offset in the structure} - \text{Number of non-repeating bytes})}{\text{RepeatSize}}$$

whereas “Number of nonrepeating bytes” is set to 0 by default.

Assembler Data Example:

This section of code is from System Event Log Type 15. A listing of the Type structure is illustrated in Table 10, (offsets 02h - 14h are not illustrated).

Table 10				
Offset	Name	Length	Value	Description
00h	Type	BYTE	15	Event Log Type Indicator
01h	Length	BYTE	Varies	Length of the structure, including the Type and Length fields. The Length is 14h for v2.0 implementations or computed by the BIOS as 17h + (x*y) for v2.1 and higher—where x is the value present at offset 15h and y is the value present at offset 16h
...	...	...	...	...
15h	Number of Supported Log Type Descriptors (x)	BYTE	Varies	Number of supported even log type descriptors that follow. If the value is 0, the list that starts at offset 17h is not present
16h	Length of each Log Type Descriptor (y)	BYTE	2	Identifies the number of bytes associated with each type entry in the list below. The value is currently “hard-coded” as 2, since each entry consists of two bytes. This field’s presence allows future additions to the type list. Software that interprets the following list should not assume a list entry’s

Table 10				
Offset	Name	Length	Value	Description
				length.
17h to (17h + (x*y)) - 1	List of Supported Event Log Type Descriptors	Varies	Varies	Contains a list of Event Log Type Descriptors (see 3.3.16.1), so long as the value specified in offset 15h is non-zero.

Table 11 shows the description for different Event Log values.

Table 11	
Value	Description
00h	Reserved
01h	Single-bit ECC memory error
02h	Multi-bit ECC memory error
03h	Parity memory error
04h	Bus time-out
05h	I/O Channel Check
06h	Software NMI
07h	POST Memory Resize
08h	POST Error
09h	PCI Parity Error
0Ah	PCI System Error
0Bh	CPU Failure
0Ch	EISA FailSafe Timer time-out
0Dh	Correctable memory log disabled
0Eh	Logging disabled for a specific Event Type - too many errors
0Fh	Reserved
10h	System Limit Exceeded (e.g. voltage or temperature threshold exceeded)
11h	CPU Failure Asynchronous hardware timer expired and issued a system reset
12h	System configuration information
13h	Hard-disk information
14h	System reconfigured
15h	Uncorrectable CPU-complex error
16h	Log Area Reset/Cleared
17h	System boot

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..  
..

dw SET\_REPEAT\_COUNT\_ID ; Set REPEAT identifier.  
db GET\_COUNT\_FROM\_FOLLOWING\_OFFSET ;Get repeat count from  
next key

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db 0 ; Size of repeated section in bytes  
db 0 ; Number of non-repeating bytes

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5      dw      DATA_ID                      ; Data identifier
      db      "Number of Supported Log Type Descriptors",0 ; Field Description
      db      01h                          ; Length of data
      db      FORMAT_DECIMAL                ; Printed Data format
      db      " Descriptors",0              ; Any text to follow data
      db      "Number of the supported event log type descriptors that follow.",0

10     dw      SET_REPEAT_SIZE_ID

      dw      DATA_ID                      ; Data identifier
      db      "Length of each Log Type Descriptor",0 ; Field Description
      db      01h                          ; Length of data
      db      FORMAT_DECIMAL                ; Printed Data format
15     db      " Bytes",0                  ; Any text to follow data
      db      "Identifies the number of bytes associated with each type entry.",0

      ; -----Repeating block start
20     dw      SET_REPEAT_START_ID

      dw      ENUM_ID
      db      "Log Type",0
      db      00h, "Reserved.",0
      db      01h, "Single-bit ECC memory error",0
25     db      02h, "Multi-bit ECC memory error",0
      db      03h, "Parity memory error",0
      db      04h, "Bus time-out",0
      db      05h, "I/O Channel Check",0
      db      06h, "Software NMI",0
30     db      07h, "POST Memory Resize",0
      db      08h, "POST Error",0
      db      09h, "PCI Parity Error",0
      db      0Ah, "PCI System Error",0
      db      0Bh, "CPU Failure",0
35     db      0Ch, "EISA FailSafe Timer time-out",0
      db      0Dh, "Correctable memory log disabled",0
      db      0Eh, "Logging disabled for a specific Event Type - too many errors ",0
      db      0Fh, "Reserved",0
      db      10h, "System Limit Exceeded (e.g. voltage or temperature threshold
40                                exceeded).",0
      db      11h, "Asynchronous hardware timer expired and issued a system reset.",0
      db      12h, "System configuration information",0
      db      13h, "Hard-disk information",0
      db      14h, "System reconfigured",0
45     db      15h, "Uncorrectable CPU-complex error",0
      db      16h, "Log Area Reset/Cleared",0

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